1953-54 **File No.** CBI 1354

C CLASS P W **DEPARTMENT**
T **BRANCH**

Subject:— Rainfall Run off sub committee
'Rainfall analysis for multi purpose.
water & Power projects

(F 10/E)

C [K] 1954

File No. CBI 1354

Etd. Sectt. Slip. 94 A.

T-13r

1953-54 **File No.** CBI 1354

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Subject:— Rainfall Run off sub committee Rainfall analysis for multi purpose. water & Power projects

(P) 10/(E)

C [K] 1954

File No. CBI 1354

Etd. Scott. Slip. 24 A.

T-13Y

Std. Scott. 78A a.

G.R., G D., No. 2408, dated 22-6-22.]

Correspondence

DOCKET SHEET (B)

Subject :—

File No. CBL 1354

P.W DEPT.

T BRANCH.

References :—

Main file sent to Maharastra (GM)

Date.	To whom sent.	Notes and instructions.

Telephone:- 45219
Telegraph:- CENBIP
NEW DESHI.

No. 1199 /J-154
CENTRAL BOARD OF IRRIGATION
AND POWER
"CURZON ROAD BARRACKS"
NEW DELHI.

Dated the 27th Feb. 1954.

From

Shri M.L.Aggarwal, I.S.C., M.I.E.,
Secretary,
Central Board of Irrigation and Power.

To

The chief Engineer Irrigation,
Public Works Department,
Bombay Castle.

(Personal attention of Shri M.L.Champhekar)

Subject:- RAINFALL RUN OFF SUB COMMITTEE CHANGE OF MEMBERSHIP.

Sir,

As decided at the last Board Meeting in october, 1954 you have been appointed as member of the sub-Committee cited in place of Shri S.D.Khungar.

The other members of the Sub-Committee are :-

1. Shri P.R.Ahuja (Convenor)

2. Shri V.Satakopan, (Member)
Indian Meteorological Office,
New Delhi.

Yours faithfully,

Sd/-
Assistant Secretary,(G)
Central Board of Irrigation and Power.

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No
D.O.CBI 1354.J.

Public Works Department
Secretariat,
Bombay No. 1, 4th March 54.

Dear

I am informed by the Secretary central Board of Irrigation that I am made member of the ~~xubxDi~~ Sub-Committee on Rainfall and runoff, of which you are the convenor,

2. Please let me know what work this sub-committee is entrusted with and at which stage that work at present is .

Yours sincerely.

Sd/-

M.L.Champhekar.

Shri R,D.Dhir,
Director,
Central Water and Power commission,
Bikaner House,
New Delhi.

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R.D.Dhir I.S.E.,
Director (W.I.N.)

No.D.O.1/RRSC/WIN/54
Government of India, C.W.&P.
Curzon Road, New Delhi.
28th May 1954.

My dear Champhekar,

Your D.C.No. CBI 1354 J dated the 4th March 1954 and reminder of even No. dated the 24th March 1954.

I am sorry I could not reply you earlier as I had been out of India.

You might remember that Shri Satagopan had proposed certain basic analysis of rainfall data collected by the I.M.D., to be of ready use for hydrological calculations in connection with the multipurpose river valley projects in India . A sub.Committ consisting of Shri Khangar, Myself and Shri Satagopan was constituted by the C.B.I. to look into the proposals of Shri Satagopan and recommend to the Board what basic analysis would be useful to the Engineers. Shri Khangar could not attend the meetings of the Sub-Committee so that discussion was held between shri Satagopan and myself only. As a result certain recommendations were made to the Board. Curiously, Shri Satagopan changed him mind and suggested to the Board at the time of the submission of the recommendations that his proposals might be looked into again, as he thought , that full justice had not been done in this connection. The Board, thereupon reconstituted the Sub Committee with yourself, myself and Shri Satagopan as members.

I hope a copy of his note embodying his proposals is already with you. If not, please let me know and I will send you a copy.

Further please let me know where you would like the meeting of the Sub Committee to be held about what time it will be convenient for you to attend. On receipt of this information from you I will contact Shri Satagopan and fix a date for the meeting.

Yours sincerely,
Sd/-
R.D.Dhir

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Shri M.L.Champhekar, I.S.E.
Chief Engineer (Irrigation)
Public Work's Department Secretariat,
Bombay No. 1.

D O. No. CBI 1354 J

P.W.D.
Secretariat.
BG. No.1. 4 June 1954.

To.
Shri R.D.Dhuri
Director (W.I.N.)
Curzon Rd. Banaras
New Delhi.

Dear,

Your D.O. letter No. 1/RRSC/ WIN /54 dated 28/5/54.

2. Please send me a copy of Shri Satagopan 's paper.

3. I shall comminicate later date suitable to me for the meeting.

Id/-

Report of the Central Board of Irrigation and Power Sub-Committee on Rainfall analysis for multi-purpose Water power projects.

A meeting of the Reconstituted sub-Committee on rainfall analysis for multi-purpose water and power projects was convened in the room of Shri P.R.Ahuja, Director (Hydrology) Central Water and Power commission at 3-00 P.M. on 16th July. 1954.

The following attended

1. Shri M.L.Champhekar, I.S.E., Chief Engineer, (irrigation), Bombay.
2. Shri V.Satakopan Meteorologist, Indian, Meteogological Department, New Delhi.
3. Shri P.R.Ahuja, Director (Hydrology), C.W.and P.C.(Covenor).

A report of the carlier sub-Committee andthe draft resolution presented at the Board meeting held in October 1953 at New Delhi were considered.. The recommendations made by Shri V.Satakopan in his paper on the subject were than considered in detail.

The Sub-Committee has unanimoulsy argeed on the draft resolution enclosed herewith and commends it for adoption by the research committee.

The question of the implementation of the recommendations and the agency therefore was considered by the Sub-Committee which feels that the resolution shoud for the present be in the nature of recommendation of a technical policy. Implementation comes up at a leter stage when the policy recommended in this resolution is accepted by the board and taken up in consultation with the State Government and interested Departments like, Indian Meteorological Department and Central Water and Power commission. There is also question of fixing relative priorities in implementing various recommendations of the resolution. Priorities will be fixed in relation to the urgency for carrying out the recommended analytical work in respect of select regions or basins wheredevelopmental activity is planned.

The Sub-Committee recommends that when the Board transmits the resolution to different state Governments and interested agencies, a copy of the paper written by Shri Satakopan on the subject should be simultaneously sent along with the resolution.

Sd/- M.L. Champhekar 17/7/54 | Sd/- V.Satakopan 17/7/54 | Sd/-P.R. Ahuja 17/7/54.

$ Printed copies of paper not available.

Draft resolution on the Sub-Committee Report on Rainfall Analysis for Multi-purpose Water and Power Projects in India.

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. Rainfall data for a large number of rain guage stations distributed throughout India are available with the India Meteorological Department for varying periods from 50-75 years. The analysis of these date has so far been conducted from the point of view of the requirements of general climatological and long range forecasting purposes, It is considered that in order that they may be useful for water power projects, they shoud be processed and analysed in greater detail.

The Central Board of Irrigarion and Power, therefore, considers that such items of analysis as are given below should be carried out with the available date so that the resultaat data may become readily available for water and power projects in India.

(1) Isohyetal maps showing normal, monthly and annual rainfall may be prepared on as open a scale as practicable for the whole country.

(2) A general survey of density of raingauge stations in the country from the point of view of the requirements of water and power projects may be made and recommendations may be offered for increase in the density if required in certain areas. Further a definite percentage of the number of rain guarges depnding on the requirements of each catchment and at any rate not less than 10% should be of the self recording type.

(3) A special study of the rainfall in the Himalayan and other montainous catchments by setting up more rain guage stations in those catchments may be made.

(4) A study of selected storms with their rainfall yield along their tracks may be made. Such a study may be extended to all the storms of depressions later, if the information yielded by the studies becomes useful.

(5) Time depth area curves may be constructed for different areas of the county based on the storms studies indicated in the previous items.

(6) Intensity duration relationship for rainfall for very short periods may be attempted by analysing available self.recording rainguage charts for different sations.

(7) Frequency tables shoeing the number of occasions when raifall was betweendifferet amounts may be prepared for selected representative s ations in India. This items. may be extended to all the stations if the type of informatin given is fund to be useful.

(8) Maps of rainfall probability may be prepared for selected areas of the county and extended further to cover the whole country if such maps are found useful.

The Central Board of Irrigation and Power considers that the a formationed analysis would be useful not only to irrigation and power projects undertaken by the central and State Governments but also to most other agencies like the departments of highways, railways, municipalities , industries etc. which for a variety of purposes, such as bridge construction, drainage or domestic water supply have to concern themselves with the nature and extent of water flows and floods.

No. 5373/08J 154.

Central Board of Irrigation and Power,
Curzon Road Barracks,
New Delhi.

dated 16/9/1954.

My dear Srhi Champhekar,

Your will recollect that Shri Satakopan, of the India Meteorological Department had presented a peper at the annual Board Meeting in 1950 on Rainfall Analyis for Munti-purpose Projects in India. In this paper Shri Satkopan pointed out that the data at present being collected and maintained by the India Meteorological Department is mainly intended to serve the purpose of Civil, Military, aviation, general climatology administration and agricultural purposes etc. and that it is not properly processed for use in the river f valley projects. He had recommneded that certain basic processing and analysis should be carried out to render the data readily useful for river valley projects.

A sub-Committee was formad to go into the suggestionsmade by Shri Satakopan and the final recommendations of the sub-Committee as presented to Research Committee are enclosed. The Research Committee has also approved of a draft resolution which will be presented at the next annual Board Meeting I am therefore directed to enclose herewith the Sub-Committees report along with the draft resolution for favour of your perusal and any comments of modifications that you may like to make at the time of consideration of this resolution at the next Board Meeting..

Yours sincerely,

Sd/-

M.L.Aggarwal.

To

Shri M.L.Champhekar, I.S.E.
Chief Engineer Irrigation,
Public Works Department.
Bombay Castle.

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CBE 1354/138392
P. W. D.

I.Br.

Submitted.

2. In view of the C.E.(I)'s note at p. 21 ante, no further action is necessary on the reference within except to keep t is file along with the papers at the annual Board Meeting of the CBI & P. These papers will be put up to the C.B.(I) together with the Annual Board Meeting papers at the time of the meeting to be held from 22nd to 27th Nov 1954. at New Delhi.

Id/-

Id/-
11/11/54.